WHAT IS CLAIMED IS:

1.   A computer-implemented method for synchronizing data between a graphical client and a server, comprising:

(a) downloading one or more root object nodes of a scene from the server to the graphical client;

(b) intersecting bounding volumes for the object nodes with a view frustum in the graphical client to determine a set of visible and undefined object nodes; and

(c) downloading the object nodes in the set of visible and undefined object nodes from the server to the graphical client.

2.   The method of claim 1, further comprising:

(d) determining whether the downloaded object nodes reference other object nodes; and

(e) repeating steps (b) and (c) for the other object nodes.

3.   The method of claim 2, further comprising:

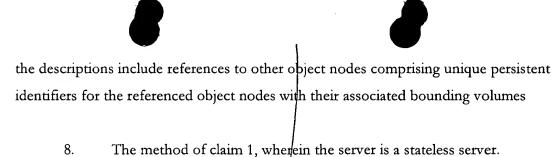(f) repeating steps (d) and (e) until the set of visible and undefined object nodes is empty.

4.   The method of claim 3, further comprising rendering the scene when the set of visible and undefined object nodes is empty.

5.   The method of claim 4, further comprising repeating steps (a) through (f) when a camera changes the scene.

6.   The method of claim 1, wherein the downloading step (a) comprises downloading descriptions of the root object nodes from the server to the graphical client, wherein the descriptions include references to other object nodes comprising unique persistent identifiers for the referenced object nodes with their associated bounding volumes.

7.   The method of claim 1, wherein the downloading step (a) comprises downloading descriptions of the object nodes from the server to the graphical client, wherein

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the descriptions include references to other object nodes comprising unique persistent identifiers for the referenced object nodes with their associated bounding volumes

8. The method of claim 1, wherein the server is a stateless server.

9. The method of claim 1, wherein the graphical client includes a cache.

10. A computer-implemented system for synchronizing data between a graphical client and a server, comprising:

(a) a graphical client, executed by a computer, including:

(1) means for downloading one or more root object nodes of a scene from the server to the graphical client;

(2) means for intersecting bounding volumes for the object nodes with a view frustum in the graphical client to determine a set of visible and undefined object nodes; and

(3) means for downloading the object nodes in the set of visible and undefined object nodes from the server to the graphical client.

11. The system of claim 10, wherein the graphical client further comprises:

(4) means for determining whether the downloaded object nodes reference other object nodes; and

(5) means for repeating the means for intersecting (2) and the means for downloading (3) for the other object nodes.

12. The system of claim 11, wherein the graphical client further comprises:

(6) means for repeating the means for determining (4) and means for repeating (5) until the set of visible and undefined object nodes is empty.

13. The system of claim 12, wherein the graphical client further comprises means for rendering the scene when the set of visible and undefined object nodes is empty.
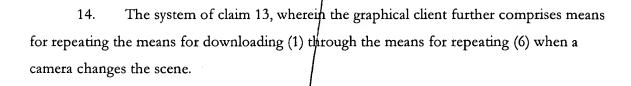
14.   The system of claim 13, wherein the graphical client further comprises means for repeating the means for downloading (1) through the means for repeating (6) when a camera changes the scene.
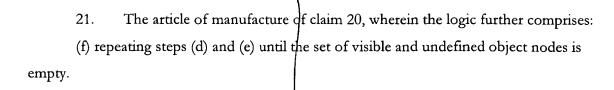
15.   The system of claim 10, wherein the means for downloading (1) comprises means for downloading descriptions of the root object nodes from the server to the graphical client, wherein the descriptions include references to other object nodes comprising unique persistent identifiers for the referenced object nodes with their associated bounding volumes.

16.   The system of claim 10, wherein the means for downloading (1) comprises means for downloading descriptions of the object nodes from the server to the graphical client, wherein the descriptions include references to other object nodes comprising unique persistent identifiers for the referenced object nodes with their associated bounding volumes

17.   The system of claim 10, wherein the server is a stateless server.

18.   The system of claim 10, wherein the graphical client includes a cache.

19.   An article of manufacture embodying logic for synchronizing data between a graphical client and a server, the logic comprising:

      (a) downloading one or more root object nodes of a scene from the server to the graphical client;

      (b) intersecting bounding volumes for the object nodes with a view frustum in the graphical client to determine a set of visible and undefined object nodes; and

      (c) downloading the object nodes in the set of visible and undefined object nodes from the server to the graphical client.

20.   The article of manufacture of claim 19, wherein the logic further comprises:

      (d) determining whether the downloaded object nodes reference other object nodes; and

      (e) repeating steps (b) and (c) for the other object nodes.

21.   The article of manufacture of claim 20, wherein the logic further comprises:

(f) repeating steps (d) and (e) until the set of visible and undefined object nodes is empty.

5   22.   The article of manufacture of claim 21, wherein the logic further comprises rendering the scene when the set of visible and undefined object nodes is empty.

23.   The article of manufacture of claim 22, wherein the logic further comprises repeating steps (a) through (f) when a camera changes the scene.

10   24.   The article of manufacture of claim 19, wherein the downloading step (a) comprises downloading descriptions of the root object nodes from the server to the graphical client, wherein the descriptions include references to other object nodes comprising unique persistent identifiers for the referenced object nodes with their associated bounding volumes.

15   25.   The article of manufacture of claim 19, wherein the downloading step (a) comprises downloading descriptions of the object nodes from the server to the graphical client, wherein the descriptions include references to other object nodes comprising unique persistent identifiers for the referenced object nodes with their associated bounding volumes

20   26.   The article of manufacture of claim 19, wherein the server is a stateless server.

27.   The article of manufacture of claim 19, wherein the graphical client includes a cache.

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